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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,314

09/24/2003

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2102447-990101

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7590

09/12/2006

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EXAMINER

TRAN, TUYETLIEN T

ART UNIT

PAPER NUMBER

2193

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/671,314	<b>Applicant(s)</b> SPRAUVE ET AL.	
	<b>Examiner</b> TuyetLien (Lien) T. Tran	<b>Art Unit</b> 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) 67-76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26, 29-59 and 62-66 is/are rejected.
- 7) ☒ Claim(s) 27-28, 60-61 is/are objected to.
- 8) ☒ Claim(s) 67-76 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>9/5/06</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/10/04, 1/28/04, 12/12/03</u> . | 6) <input type="checkbox"/> Other: _____.  |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-66, drawn to graphical user interface, classified in class 715, subclass 717.
  - II. Claims 67-76, drawn to input device, classified in class 345, subclass 156.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, the invention I has separate utility such as entertainment system wherein the controller does not have status, keys on the user interface device, executing the assigned commands in response to activation of the keys as recited in the invention II. See MPEP § 806.05(d).
3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their search and recognized divergent subject matter, different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Alan Limbach, Reg. No. 39,749 on or about 8/17/2006 a provisional election was made without traverse to prosecute the invention of group I, claims 1-66. Affirmation of this election must be made by applicant

in replying to this Office action. Claims 67-76 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

6. Claims 1-31, 65, and 63-64 are rejected under 35 U.S.C. 112, second paragraph, The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-31, 65, and 63-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the controller attributes" and "the controller locations" in the fifth and sixth lines of the claim. There is insufficient antecedent basis for these limitations in the claim.

Claims 63 and 64 recites the limitation "the method of" in the first line of the claims. There is insufficient antecedent basis for these limitations in the claim. For examination purpose, the claim limitations are interpreted as "the system of".

Claims 2-31 and 65 are rejected as incorporating the deficiencies of claim 1 upon which it depends.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-6, 9-10, 13-17, 20-21, 23, 25, 32-38, 40, 42-43, 46-50, 54, 56, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon et al. (Patent No. 6,930,730 B2; hereinafter Maxon) in view of Humpleman et al. (Patent No 6,182,094 B1, hereinafter Humpleman).

As to independent claim 1, Maxon discloses:

A method of operating an entertainment system (i.e., a method for centrally controlling the operation of a variety of devices, see col. 6, lines 8-11) having a controller (i.e., a primary display and control unit PDCU, see col. 6, lines 28-30) that controls a plurality of controllable components (i.e., VCR 33, DVD player 34, see Fig. 2A) in response to a plurality of user interface devices (i.e., keyboard, mouse, voice recognition system, see col. 7, lines 31-35), wherein the controllable components (i.e., VCR 33, DVD player 34) are interconnected via interconnections (e.g., components are connected as shown in Fig. 1), the method comprising:

identifying to the controller (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) attributes (e.g., manufacturer name, model number, see Fig. 7A) for the controllable components (i.e., VCR 33, DVD player 34);

identifying to the controller (i.e., connection menu 230, see Fig. 9C)  
interconnections (see col. 20, lines 31-35) therebetween;

wherein the controller (i.e., PDCU) generates graphical user interfaces (graphical user interface UI 50, see Fig. 2A) for the user interface devices (i.e., keyboard, mouse, voice recognition system) containing commands for operating the controllable components (see col. 14, lines 10-18), and wherein the commands (i.e., icon menu found in UI 50 such as Antenna icon 62, VCR icon 63 as shown in Fig. 2A) included in the graphical user interfaces (UI 50) of the user interface devices (i.e., keyboard, mouse, voice recognition system) vary based on at least some of the identified controllable component attributes (i.e., based on the type of a device, the “record” button 55 as shown in Fig. 2D may be grayed out to indicate that the recording function is not supported by the currently selected device, see col. 11, lines 5-12), and interconnections (as shown in Fig. 2E, icons that are not grayed out are used to indicate that a device is connected to the HTNS 10 and available as a PIP video source device, see col. 11, lines 35-39); and

controlling the controllable components by executing the commands of the graphical user interfaces (Fig. 2D shows a transport menu 54 that allows controlling the components by selecting function buttons such as “play”, “FF”, “RW”).

Maxon fails to explicitly teach that the controllable components are dispersed among a plurality of locations and identifying to the controller locations of the controllable locations. Humpleman teaches a method of operating an entertainment system (a

method for control of a plurality of devices connected to a home network, see col. 2, lines 15-18);

wherein the controllable components (i.e., DTV, DVD, DVCR as shown in Fig. 5A) are dispersed among a plurality of locations (e.g., components are dispersed among living room, office, or Mike's room as shown in Fig. 7);

identifying to the controller locations of the controllable components (see col. 10, lines 56-63);

and wherein the commands (e.g., icon button as shown in Fig. 7) included in the graphical user interfaces (see col. 4, lines 15-19) of the user interface devices vary based on locations (i.e., icons button in living room user interface are different from the ones in the office or Mike's room, see Fig. 7) of the user interface devices (e.g., mouse or other point-and-click device, see col. 5, lines 1-5) as well as of the identified controllable component locations (i.e., living room, office, or Mike's room).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the function of arranging the controllable components based on their locations as taught by Humpleman to the method of operating an entertainment system as taught by Maxon to be able to define the arrangement of device images and command icons according to respective home device's placement in the home and to further include additional text lines to describe the grouping and/or the devices depicted by the device images and associated icons to intuitively know where the components are located as shown in Humpleman Fig. 7 (see Humpleman col. 13, lines 58-67 and col. 14, lines 1-3); thus permits the remote control to access and control

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a plurality of device without requiring any change in the mode of operation thereof (see Humpleman col. 23, lines 54-59).

As to independent claim 32, this claim differs from claim 1 only in that claim 32 is a system claim whereas claim 1 is a method claim. It should be noted that Maxon also teaches a system of operating an entertainment system (see col. 6, lines 7-10). Thus claim 32 is analyzed as previously discussed with respect to claim 1 above.

As to claim 2, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Humpleman further teaches wherein the identification of controllable component attributes (e.g., the users making selections associated with the devices, see col. 9, lines 27-30) includes supplying an attribute data file (i.e., properties files, see col. 9, lines 7-14) to the controller (i.e., home device server, see col. 4, lines 42-44) for at least one of the controllable components (i.e., VCR, TV, see col. 4, lines 57-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the function of supplying an attribute data file as taught by Humpleman to the method of operating an entertainment system as taught by Maxon to take advantages of the fact that data about a device is provided to a user either at a device itself or at another device connected to the home network to be able to control and command the new home devices later added to the home entertainment system without manually identifying attribute data to the controller (see Humpleman col. 1, lines 62-67 and col. 2, lines 8-13).



As to claim 3, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches wherein the identification of controllable component attributes (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) includes inputting to the controller (PDCU) the attributes (e.g., manufacturer name, model number, see Fig. 7A) for at least one of the controllable components (i.e., VCR 33, DVD player 34), and wherein the controller creates an attribute data file (i.e., device container object, see col. 15, lines 45-67; or device model object DMO which contains details of connection and communication with a particular device, see col. 16, lines 35-41) for the one controllable component based upon the inputted attributes (it should be noted that device container object consists information such as model number and device type).

As to claim 4, Maxon and Humpleman teach the limitation of claim 3 for the reasons as discussed with respect to claim 3 above. Humpleman discloses wherein the attribute data file is an XML file (i.e., interface data in XML format that provides an interface for the commanding and controlling of the home device, see col. 4, lines 7-11) with a published schema (it is noted that in order for an XML parser to read/understand XML interface data, the program has to refer to a published schema within XML file itself or from external schema file; otherwise the program cannot transform XML data into graphical user interface). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 2.

As to claim 5, Maxon and Humpleman teach the limitation of claim 3 for the reasons as discussed with respect to claim 3 above. Maxon further teaches wherein the identification of attributes for the at least one controllable component (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) further includes:

generating menu screens (i.e., manufacturer name menu drop-down list as shown in Fig. 7A) that list a plurality of attributes (e.g., manufacturer name, model) to choose (i.e., select) from, and

selecting from the listed attributes those corresponding to the at least one controllable component (i.e., users can select a model no from a drop-down menu list) using an input device (i.e., keyboard, mouse see col. 7, lines 31-35).

As to claim 6, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches wherein at least one of the controllable components is capable of translating signal from one type of signal to another type of signal (a translator subsystem 408 as shown in Fig. 11A and 11B), and wherein the translation capability is one of the attributes identified to the controller (e.g., interpreting an input command to determine what devices to connect and how to connect, see col. 2, lines 59-67).

As to claim 9, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches the identification of each of the interconnections of the controllable components (e.g.,

information is provided to the controller during a configuration setup, see col. 4, lines 11-17) includes:

generating one or more menu screens for the controllable components (i.e., menu screen "connection for <Device Type>" as shown in Fig. 9C); and

for each of the controllable components, inputting on the one or more menu screens the identification of each of the interconnections connected (e.g., setting up interconnection by marking up the check box item, see col. 20, lines 31-44) thereto using an input device (i.e., keyboard, mouse see col. 7, lines 31-35).

As to claim 10, Maxon and Humpleman teach the limitation of claim 9 for the reasons as discussed with respect to claim 9 above. Maxon further teaches the wherein the interconnections identified to the controller (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) correspond to physical wires connected between the controllable components (see col. 21, lines 20-40).

As to claim 13, Maxon and Humpleman teach the limitation of claim 3 for the reasons as discussed with respect to claim 3 above. Humpleman further teaches wherein the commands for operating the controllable components are generated from the attribute data files (see col. 4, lines 4-19) thereof. Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 2.

As to claim 14, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Humpleman further teaches for each of the user interface devices, the graphical user interface thereof contains commands only for those of the controllable components that have an effect on the location of the user interface device (i.e., only IBM computer is displayed in the location "Office" as shown in Fig. 7). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 1.

As to claim 15, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Humpleman further teaches the locations of the controllable components and user interface devices are rooms within a structure (i.e., "Living Room", "Mike's room", and "Office" are rooms within a house as shown in Fig. 7);

for each of the user interface devices, the graphical user interface thereof contains commands only for those of the controllable components (i.e., only icons commands available for "Living Room" as shown in Fig. 7) that have an effect on any of the controllable components that are located in the same room as the user interface device (see col. 14, lines 40-45). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 1.

As to claim 16, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Humpleman further teaches at least one of the locations (e.g., living room as shown in Fig. 7) includes one or more of

the controllable components that are output devices (i.e., TV) that display video and/or play sounds (e.g., TV playing a movie), and wherein the user interface device (i.e., interface 608) located in the one location (i.e., living room) contains commands (i.e., icons satellite and TV) only for those of the controllable components that are interconnected (i.e., icons satellite is used to feed signal to TV for output as shown in Fig. 7) with the one or more output devices (TV). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 1.

As to claim 17, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches identifying to the controller (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) attributes for an additional controllable component (e.g., a new device can be added to the home entertainment system using menu 228 as shown in Fig. 9B); identifying to the controller (e.g., information is provided to the controller during a configuration setup) any interconnections (i.e., by using "connection for <Device Type>" as shown in Fig. 9C) thereof with any of the plurality of controllable components (i.e., VCR 33, DVD player 34); wherein the controller (PDCU) modifies the graphical user interface of at least one of the user interface devices to add commands for operating the additional controllable component (it is noted that the menu screen "REVIEW" is used to list all the devices currently included in the home entertainment system as shown in Fig. 8). Maxon fails to teach that identifying to the controller locations of the controllable components; however, Humpleman teaches identifying to

the controller locations of the controllable components (see col. 10, lines 56-63). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 1.

As to claim 20, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches identification of interconnections to the controller includes identifying a plurality of wiring rules (see col. 7, lines 19-21) to the controller (PDCU), and wherein the controller (PDCU) generates a list of the interconnections between the controllable components based upon the identified wiring rules (see menu screen 220 in Fig. 8).

As to claim 21, Maxon and Humpleman teach the limitation of claim 20 for the reasons as discussed with respect to claim 20 above. Maxon further teaches modifying (it is noted that one can change the attribute of a component, see Fig. 9B) the wiring rules (see col. 7, lines 19-21), wherein the controller modifies the list of interconnections based upon the modified wiring rules (see Fig. 8).

As to claim 23, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches the controller generates a parts list of the plurality of controllable components (i.e., a device container list DCL 117, see col. 15, lines 45-55) and the interconnections (i.e., device interconnect list DIL 118) thereof based upon the identified attributes and the identified interconnections (see col. 15, lines 55-67).

As to claim 25, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Humpleman further teaches the controller generates elevational views (e.g., icons are displayed vertically in the menu screen 606 as shown in Fig. 7) of at least some of the controllable components (i.e., TV and antenna) and locations (i.e., living room or Mike's room) thereof based upon the identified locations (i.e., living room or Mike's room) of the controllable components (i.e., TV and antenna). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 1.

As to claim 33, Maxon and Humpleman teach the limitation of claim 32 for the reasons as discussed with respect to claim 32 above. Maxon further teaches an input device (i.e., keyboard, mouse, voice recognition system, see col. 7, lines 31-35) to identify to the controller (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) the attributes (e.g., manufacturer name, model number, see Fig. 7A) of the controllable components (i.e., VCR 33, DVD player 34), and the interconnections (see col. 20, lines 31-35) therebetween. Maxon fails to teach identifying to the controller locations of the controllable components. Humpleman teaches identifying to the controller locations of the controllable components (see col. 10, lines 56-63). Thus, combining Maxon and Humpleman would meet the claimed limitation for the same reason as discussed with respect to claim 32.

As to claim 34, Maxon and Humpleman teach the limitation of claim 32 for the reasons as discussed with respect to claim 32 above. Maxon further teaches wherein

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the controllable component attributes (i.e., manufacturer names and model names are stored in the IR device list, see col. 17, lines 50-53) are stored in attribute data files (IR device list) that are accessible by the controller (the device information is read from persistent storage and placed into the IR device list, see col. 17, lines 32-35).

As to claim 35, this claim differs from claim 4 only in that claim 35 is a system claim (see col. 6, lines 7-10) whereas claim 4 is a method claim. Thus claim 35 is analyzed as previously discussed with respect to claim 4 above.

As to claim 36, Maxon and Humpleman teach the limitation of claim 33 for the reasons as discussed with respect to claim 33 above. Maxon further teaches the controller generates a menu screen on the input device for inputting to the controller the attributes for at least one of the controllable components (i.e., manufacturer name menu drop-down list as shown in Fig. 7A), and wherein the controller creates an attribute data file (i.e., device container object, see col. 15, lines 45-67) for the one controllable component (i.e., VCR 33, DVD player 34) based upon the inputted attributes (i.e., model number or manufacturer name selected by a user, see Fig. 7A).

As to claim 37, Maxon and Humpleman teach the limitation of claim 36 for the reasons as discussed with respect to claim 36 above. Maxon further teaches wherein the menu screen lists a plurality of attributes from which to choose from for the one controllable component (i.e., Manufacturer Name and Model No. menu drop-down lists as shown in Fig. 7A).



As to claim 38, Maxon and Humpleman teach the limitation of claim 32 for the reasons as discussed with respect to claim 32 above. Maxon further teaches wherein at least one of the controllable components includes an attribute of translating signal from one type of signal to another type of signal (a translator subsystem 408 as shown in Fig. 11A and 11B).

As to claim 40, Maxon and Humpleman teach the limitation of claim 33 for the reasons as discussed with respect to claim 33 above. Maxon further teaches the controller (PDCU) generates at least one menu screen on the input device in which a manufacturer (i.e., manufacturer name drop-down menu list as shown in Fig. 7A) and a model of one of the controlled components can be selected from a list of plural manufacturers and models (i.e., Model No. drop-down menu list).

As to claim 42, Maxon and Humpleman teach the limitation of claim 33 for the reasons as discussed with respect to claim 33 above. Maxon further teaches the controller (PDCU) generates one or more menu screens (i.e., menu screen "connection for <Device Type>" as shown in Fig. 9C) on the input device (i.e., AV devices and other inputs are interconnected, see col. 6, lines 33-35) in which identifications of the interconnections can be entered (e.g., setting up interconnection by marking up the check box item, see col. 20, lines 31-44).

As to claim 43, Maxon and Humpleman teach the limitation of claim 42 for the reasons as discussed with respect to claim 42 above. Maxon further teaches the interconnections are physical wires (i.e., circuitry, see col. 6, lines 43-50) connected

between the controllable components (i.e., AV devices and other inputs are interconnected, see col. 6, lines 33-35).

As to claim 46, this claim differs from claim 13 only in that claim 46 is a system claim (see col. 6, lines 7-10) whereas claim 13 is a method claim. Thus claim 46 is analyzed as previously discussed with respect to claim 13 above.

As to claim 47, this claim differs from claim 14 only in that claim 47 is a system claim (see col. 6, lines 7-10) whereas claim 14 is a method claim. Thus claim 47 is analyzed as previously discussed with respect to claim 14 above.

As to claim 48, this claim differs from claim 15 only in that claim 48 is a system claim (see col. 6, lines 7-10) whereas claim 15 is a method claim. Thus claim 48 is analyzed as previously discussed with respect to claim 15 above.

As to claim 49, this claim differs from claim 16 only in that claim 49 is a system claim (see col. 6, lines 7-10) whereas claim 16 is a method claim. Thus claim 49 is analyzed as previously discussed with respect to claim 16 above.

As to claim 50, Maxon and Humpleman teach the limitation of claim 33 for the reasons as discussed with respect to claim 33 above. Maxon further teaches in response to an additional controllable component (i.e., VCR 33, DVD player 34) being identified (e.g., information is provided to the controller during a configuration setup) to the controller (e.g., a new device can be added to the home entertainment system using menu 228 as shown in Fig. 9B) via the input device (i.e., keyboard, mouse, voice

recognition system), the controller modifies the graphical user interface of at least one of the user interface devices to add commands for operating the additional controllable component (see col. 20, lines 23-44).

As to claim 54, this claim differs from claim 21 only in that claim 54 is a system claim (see col. 6, lines 7-10) whereas claim 21 is a method claim. Thus claim 54 is analyzed as previously discussed with respect to claim 21 above.

As to claim 56, this claim differs from claim 23 only in that claim 56 is a system claim (see col. 6, lines 7-10) whereas claim 23 is a method claim. Thus claim 56 is analyzed as previously discussed with respect to claim 23 above.

As to claim 58, this claim differs from claim 25 only in that claim 58 is a system claim (see col. 6, lines 7-10) whereas claim 25 is a method claim. Thus claim 58 is analyzed as previously discussed with respect to claim 25 above.

10. Claims 7 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1 and 32-33, and further in view of Gauthier et al (Pub No. US 2003/0093161 A1; hereinafter Gauthier).

As to claim 7, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon and Humpleman fail to teach generating a menu screen corresponding to the location. Gauthier teaches generating a menu screen corresponding to the location (i.e., drop-down menu of locations such as building, floor, wing as shown in Fig. 27); and inputting onto the menu

screen, using an input device, the identification of at least one of the controllable components located at the location (it should be noted that users can select an item from the drop-down list using mouse or keyboard as shown in Fig. 27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the drop-down menu of location as taught by Gauthier to the method of operating an entertainment system as taught by Maxon as modified by Humpleman to provide the ability to control the home devices according to their location as shown in Gauthier Fig. 28 (see Gauthier [0141]).

As to claim 39, this claim differs from claim 7 only in that claim 39 is a system claim (see col. 6, lines 7-10) whereas claim 7 is a method claim. Thus claim 39 is analyzed as previously discussed with respect to claim 7 above.

11. Claims 11 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1, 9-10, 32-33, 42-43, and further in view of Creed et al. (Pub No. US 2003/0107674 A1; hereinafter Creed).

As to claim 11, Maxon and Humpleman teach the limitation of claim 10 for the reasons as discussed with respect to claim 10 above. Maxon further teaches the identification of the interconnections includes a type (i.e., wireless, dial-up or internet connection, see col. 7, lines 30-35) of the physical wires (i.e., circuitry, see col. 6, lines 44-46). Maxon and Humpleman fail to teach that the identification of the interconnections includes a quality of the physical wires. Creed teaches the

identification of the interconnections (i.e., selecting the set-up instruction, see [0008]) includes a quality (see [0015] of the physical wires (i.e., cable). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used method of identifying a quality of physical wire as taught by Creed to the method of operating an entertainment system as taught by Maxon as modified by Humpleman provide a means for minimizing the difficulty and confusion when interconnecting the individual components of a home entertainment system (see Creed [0006]).

As to claim 44, this claim differs from claim 11 only in that claim 44 is a system claim (see col. 6, lines 7-10) whereas claim 11 is a method claim. Thus claim 44 is analyzed as previously discussed with respect to claim 11 above.

12. Claims 8 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman and Gauthier, as applied to claims 1, 32-33, 40, and further in view of Ryan et al (Patent No. US 6,405,103 B1; hereinafter Ryan).

As to claim 8, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further teaches the identification of controllable component attributes (e.g., information is provided to the controller during a configuration setup, see col. 4, lines 11-17) includes creating an attribute data file (i.e., device container object, see col. 15, lines 45-67) for each of the controllable components based upon the attributes (it should be noted that device container object consists information such as model number and device type) thereof; selecting manufacturer (i.e., manufacturer name drop-down menu list as shown in Fig.

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7A) and model information (i.e., Model No. drop-down menu list) of the controllable components on the one or more location menu screens (i.e., menu screen "DEVICE TYPE" as shown in Fig. 7A) using an input device (i.e., keyboard, mouse, voice recognition system, see col. 7, lines 31-35). Maxon and Humpleman fail to teach generating a menu screen corresponding to the location. Gauthier discloses generating a menu screen corresponding to the location (i.e., drop-down menu of locations such as building, floor, wing as shown in Fig. 27). Thus, combining Maxon, Humpleman, and Gauthier would meet the claimed limitation for the same reason as previously discussed with respect to claim 7. Maxon, Humpleman, and Gauthier do not teach inputting on the one or more location menu screens the names of the attribute data files using the input device. Ryan teaches inputting on the one or more location menu screens (i.e., input file selector 64 as shown in Fig. 3 is used to enter information about components such as file name for an attribute file, see col. 7, lines 20-30) the names of the attribute data files (i.e., file name) using the input device (i.e., keyboard 30, a mouse or other suitable pointing device, see col. 3, lines 63-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the menu field for inputting file names as taught by Ryan to the method of operating an entertainment system as taught by Maxon as modified by Humpleman and Gauthier for controlling multiple distributed devices having variant technologies and characteristics and to reduce time and error of manually entering information into the system (see Ryan col. 1, lines 61-67 and col. 2, lines 1-3).

As to claim 41, Maxon and Humpleman teach the limitation of claim 40 for the reasons as discussed with respect to claim 40 above. Humpleman further teaches wherein the controllable component attributes (i.e., device name or device manufacturer, see col. 9, lines 7-14) are stored in attribute data files (i.e., properties files) that are accessible by the controller (i.e., home device server, see col. 4, lines 42-44). Thus, combining Maxon and Humpleman would meet the above-claimed limitations for the same reason as discussed with respect to claim 2. However, Maxon and Humpleman fail to teach that at least one menu screen includes a data field in which a name of one of the attribute data files can be identified. Ryan teaches and wherein the at least one menu screen includes a data field in which a name of one of the attribute data files can be identified (i.e., input file selector 64 as shown in Fig. 3 is used to enter information about components such as file name for an attribute file, see col. 7, lines 20-30). Thus, combining Maxon, Humpleman, and Ryan would meet the claimed limitation for the same reason as discussed with respect to claim 8.

13. Claims 12, 45, and 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1 and 32 and further in view of Jaeger (Patent No. US 6,626,586 B1; hereinafter Jaeger).

As to claim 12, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. However, Maxon and Humpleman fail to teach that at least two of the controllable components, the interconnections therebetween include a plurality of different connection paths. Jaeger discloses for at

least two of the controllable components (i.e., individual network nodes, see col. 2, lines 1-10), the interconnections (e.g., the connection between network nodes as shown in Fig. 2) therebetween include a plurality of different connection paths (i.e., working connection path and substitute connection path, see col. 2, lines 30-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of multi-path connections as taught by Jaeger to the method of operating an entertainment system as taught by Maxon as modified by Humpleman so that in the case of a break in a fiber, it is ensured that a reliable substitute connection is available for the data transmission (see Jaeger col. 1, lines 32-35).

As to claim 45, this claim differs from claim 12 only in that claim 45 is a system claim (see col. 6, lines 7-10) whereas claim 12 is a method claim. Thus claim 45 is analyzed as previously discussed with respect to claim 12 above.

As to claim 65, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. However, Maxon and Humpleman fail to teach that the interconnection includes a plurality of different connection paths and that selecting the connection path based upon a quality or type of the connection path. Jaeger teaches for at least two of the controllable components (i.e., individual network nodes, see col. 2, lines 1-10), the interconnection (e.g., the connection between network nodes as shown in Fig. 2) therebetween includes a plurality of different connection paths (i.e., working connection path and substitute connection path, see col. 2, lines 30-36), the method further comprising:



selecting one of the plurality of connection paths based upon a quality or type of the connection paths (e.g., the substitute connection path is selected when the working connection path fails, see col. 1, lines 32-35); and

sending signals (i.e., data traffic, see col. 3, line 25) from one of the two controllable components to the other of the two controllable components (i.e., data is transfer from one network node to another, see Fig. 2) over the selected one connection path (i.e., the working connection path). Thus, combining Maxon, Humpleman, and Jaeger would meet the claimed limitation for the same reason as discussed with respect to claim 12.

As to claim 66, this claim differs from claim 65 only in that claim 66 is a system claim (see col. 6, lines 7-10) whereas claim 65 is a method claim. Thus claim 66 is analyzed as previously discussed with respect to claim 65 above.

14. Claims 26 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1 and 32-33 and further in view of Goulden et al (Patent No. 5,956,025; hereinafter Goulden).

As to claim 26, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. However, Maxon and Humpleman fail to disclose that at least some of the identified locations for the controlled components includes locations within one or more mounting racks. Goulden teaches at least some of the identified locations for the controlled components (items 208-218 as

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shown in Fig. 2) includes locations within one or more mounting racks (rack 224 in Fig. 2; it is noted that in order to arrange icons as in a rack 224, the location of the rack must be identified to the controller, see col. 3, lines 42-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of arranging icons in a rack as taught by Goulden to the method of operating an entertainment system as taught by Maxon as modified by Humpleman to let the user easily find specific selectable and controllable items owing to the spatial clustering of graphical representations according to the type of their functionalities: selection, control or content data such as location (see Goulden col. 2, lines 14-18).

As to claim 59, this claim differs from claim 26 only in that claim 59 is a system claim (see col. 6, lines 7-10) whereas claim 26 is a method claim. Thus claim 59 is analyzed as previously discussed with respect to claim 26 above.

15. Claims 18-19, 22, 29-31, 51-53, 55, 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1, 32-33 and further in view of Baracat et al (Pub No. US 2002/0147561 A1; hereinafter Baracat).

As to claim 18, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon and Humpleman fail to teach that the controller generates a schematic diagram of the plurality of controllable components and the interconnections thereof based upon the identified attributes and the identified interconnections. Baracat discloses the controller (ATE controller as

shown in step 2410 in Fig. 4) generates a schematic diagram (see Fig. 8) of the plurality of controllable components (i.e., objects with attributes, see [0012]) and the interconnections (i.e., connectivity) thereof based upon the identified attributes and the identified interconnections (i.e., user-specified parameters, see [0015]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of generating a schematic diagram as taught by Baracat to the method of operating an entertainment system as taught by Maxon as modified by Humpleman to describe and analyze the physical as well as functional connectivity of a system and to obtain an assessment of system health (see Baracat [0010] and [0013]).

As to claim 19, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. Maxon further discloses the identification to the controller of the interconnections includes identifying a plurality of wiring rules to the controller (see col. 7, lines 19-21). Maxon and Humpleman fail to teach the controller generates a schematic diagram of the plurality of controllable components and the interconnections thereof based upon the identified attributes and the identified wiring rules; however, Baracat discloses wherein the controller (ATE controller as shown in step 2410 in Fig. 4) generates a schematic diagram (see Fig. 8) of the plurality of controllable components (i.e., objects with attributes, see [0012]) and the interconnections (i.e., connectivity) thereof based upon the identified attributes and the identified wiring rules (i.e., user-specified parameters and thresholds, see [0015]). Thus, combining Maxon, Humpleman, and Baracat would meet the claimed limitation for the same reason as discussed with respect to claim 18.

As to claim 22, this claim is similar in scope to claim 18. Thus claim 22 is analyzed as previously discussed with respect to claim 18 above.

As to claim 29, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. However, Maxon and Humpleman fail to disclose that a test plan is generated to test the interconnections. Baracat discloses the controller (i.e., automatic test generator 123 as shown in Fig. 3) generates a test plan (i.e., test module) for testing the interconnections based upon the identification of the interconnections (see [0038]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the wire testing capability for complex hardware system as taught by Baracat to the method of operating an entertainment system as taught by Maxon as modified by Humpleman for creating and executing an accurate wiring test program, and to further obtain an assessment of system health (see Baracat [0013], lines 10-14).

As to claim 30, Maxon and Humpleman teach the limitation of claim 29 for the reasons as discussed with respect to claim 29 above. Baracat further teaches the test plan includes some but not all of the identified interconnections (i.e., continuity test, see [0067], lines 1-10). Thus, combining Maxon, Humpleman, and Baracat would meet the claimed limitation for the same reason as discussed with respect to claim 29.

As to claim 31, Maxon and Humpleman teach the limitation of claim 29 for the reasons as discussed with respect to claim 29 above. Baracat further teaches testing

the interconnections (i.e., testing the wiring for a system, see [0013], lines 1-3), wherein the controller (ATE controller as shown in step 2410 in Fig. 4) generates a schematic diagram (see Fig. 8) of the plurality of controllable components (i.e., objects with attributes, see [0012]) and the interconnections (i.e., connectivity) thereof based upon the identified attributes and the identified interconnections (i.e., user-specified parameters, see [0015]), and wherein the controller (ATE controller) separately highlights which of the interconnections have passed the testing, which of the interconnections have failed the testing, and which of the interconnections have not yet been subjected to the testing (see [0053], lines 15-23; it is noted that by filtering out the failing and untested interconnections, a user can figure out what interconnections pass the test). Thus, combining Maxon, Humpleman, and Baracat would meet the claimed limitation for the same reason as discussed with respect to claim 29.

As to claim 51, this claim differs from claim 18 only in that claim 51 is a system claim (see col. 6, lines 7-10) whereas claim 18 is a method claim. Thus claim 51 is analyzed as previously discussed with respect to claim 18 above.

As to claim 52, this claim differs from claim 19 only in that claim 52 is a system claim (see col. 6, lines 7-10) whereas claim 19 is a method claim. Thus claim 52 is analyzed as previously discussed with respect to claim 19 above.

As to claim 53, this claim differs from claim 20 only in that claim 53 is a system claim (see col. 6, lines 7-10) whereas claim 20 is a method claim. Thus claim 53 is analyzed as previously discussed with respect to claim 20 above.

As to claim 55, this claim differs from claim 22 only in that claim 55 is a system claim (see col. 6, lines 7-10) whereas claim 22 is a method claim. Thus claim 55 is analyzed as previously discussed with respect to claim 22 above.

As to claim 62, this claim differs from claim 29 only in that claim 62 is a system claim (see col. 6, lines 7-10) whereas claim 29 is a method claim. Thus claim 62 is analyzed as previously discussed with respect to claim 29 above.

As to claim 63, this claim differs from claim 30 only in that claim 63 is a system claim (see col. 6, lines 7-10) whereas claim 30 is a method claim. Thus claim 63 is analyzed as previously discussed with respect to claim 30 above.

As to claim 64, this claim differs from claim 31 only in that claim 64 is a system claim (see col. 6, lines 7-10) whereas claim 31 is a method claim. Thus claim 64 is analyzed as previously discussed with respect to claim 31 above.

16. Claims 24 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxon in view of Humpleman, as applied to claims 1, 32 and further in view of Witmer et al (Pub No. US 2003/0023411 A1; hereinafter Witmer).

As to claim 24, Maxon and Humpleman teach the limitation of claim 1 for the reasons as discussed with respect to claim 1 above. However, Maxon and Humpleman do not teach that the controller generates a list of wire lengths used to form the identified interconnections based upon the identified locations of the controllable

components. Witmer discloses the controller (i.e., a data processing system, see [0022]) generates (e.g., produces) a list of wire lengths (e.g., 'Wire Run Net Square Footage' as shown in Fig. 3) used to form the identified interconnections (see Fig. 6C) based upon the identified locations of the controllable components (e.g., locations of various devices, including speakers, volume controls, and security system, see [0021], lines 21-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the functions of generating a list of wire length as taught by Witmer to the method of operating an entertainment system as taught by Maxon as modified by Humpleman permit home networking systems to be selected, customized, and installed without disrupting the construction schedules and to allow the installation of home networking systems to be consistent from one home to the next (see Witmer [0012]).

As to claim 57, Maxon and Humpleman teach the limitation of claim 32 for the reasons as discussed with respect to claim 32 above. Maxon further discloses the interconnections are physical wires connected between the controllable components (see col. 21, lines 20-40). However, Maxon and Humpleman do not teach that the controller generates a list of lengths of the physical wires based upon the locations of the controllable components. Witmer teaches wherein the controller (i.e., a data processing system, see [0022]) generates (e.g., produces) a list of lengths (e.g., 'Wire Run Net Square Footage' as shown in Fig. 3) of the physical wires based upon the locations of the controllable components (e.g., locations of various devices, including speakers, volume controls, and security system, see [0021], lines 21-26). Thus,

combining Maxon, Humpleman, and Witmer would meet the claimed limitation for the same reason as discussed with respect to claim 24.

### ***Allowable Subject Matter***

17. Claims 27-28 and 60-61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Publication No. US 2002/0091812 A1 is cited to teach a method that allows a list of location to be generated.

Patent No. US 6,359,636 B1 is cited to teach a system to monitor a home entertainment system having a personal computer as the heart of the system.

Patent No. US 6,442,440 B1 is cited to teach a computer interface that allows a list of locations with rack information of medical test sample.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyetlien (Lien) T. Tran whose telephone number is 571-270-1033. The examiner can normally be reached on Mon-Friday: 7:30 - 5:00 (every other Friday off).



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh D. Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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T.T  
9/5/2006

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